

Amendments to the Claims:

Please cancel claims 1-26 and add new claims 27-42.

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1-26 (Cancelled)

27.(New) A method of identifying an intervention that mimics the effects of caloric restriction in cells, comprising:

obtaining a biological sample;

exposing the biological sample to an intervention;

waiting a specified period of time;

assessing changes in gene expression levels, levels of RNA, protein, or protein activity levels related to one or more biomarkers of aging; and

identifying the intervention as one that mimics the effects of caloric restriction if one or more changes in the levels also occurs in a reference animal subjected to short term caloric restriction.

28. (New) The method of claim 27, wherein the short term caloric restriction is about two to about six weeks.

29. (New) The method of claim 27, wherein the short term caloric restriction is about four weeks.

30. (New) The method of claim 27, wherein the changes are determined in a test animal.

31. (New) The method of claim 30, wherein the test animal is a mouse.

32. (New) The method of claim 27, wherein the specified period of time is six weeks or less.

33. (New) The method of claim 27, wherein the specified period of time is four weeks or less.

34. (New) The method of claim 27, wherein the specified period of time is two weeks or less.

35. (New) The method of claim 27, wherein the specified period of time is two days or less.

36. (New) The method of claim 27, wherein the biomarker of aging is a gene encoding a chaperone protein.

37. (New) The method of claim 36, wherein the chaperone protein is GRP78.

38. (New) The method of claim 27, wherein the changes in gene expression are evaluated using an oligonucleotide-based high density array.

39. (New) The method of claim 38, wherein the biomarker of aging is a gene encoding a protein involved in immune system activation.

40. (New) The method of claim 38, wherein the biomarker of aging is a gene encoding a protein involved in DNA repair.

41. (New) The method of claim 38, wherein the biomarker of aging is a gene encoding a protein involved in apoptosis.

42. (New) The method of claim 38, wherein the biomarker of aging is a gene encoding a protein involved in the enteric nervous system.